

NONEXPOSED HEAT SINK FOR  
SEMICONDUCTOR PACKAGE

Christopher J. de Simone

Lucian M. Hand

Gi Jeong Kim

Seung Mo Kim

Jin An Lee

ABSTRACT

09/ 513067

10 A semiconductor package having a fully encapsulated heat sink is disclosed, along with  
leadframes for making the package. A semiconductor chip is mounted on a surface of the heat  
sink. The heat sink is in an electrically insulative, thermally conductive connection with a  
plurality of leads that extend from a first end that overhangs the heat sink to an second end  
outside of the package body. A ring of a double sided adhesive tape attaches the heat sink to the  
15 overhanging portion of the leads. The heat sink design minimizes voids and damage caused by  
the encapsulation process, while maintaining thermal performance comparable to conventional,  
exposed heat sinks.